

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion is respectfully requested.

Claims 1-34 are currently pending in the application. Claims 7, 9, 23 and 25 are amended to correct a minor informalities. No new matter is added by the present amendment.

In the outstanding Official Action, Claims 7, 9, 23 and 25 were objected to because of minor informalities; Claims 1, 3, 17, 19, 33 and 34 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman et al. (U.S. Patent No. 6,874,161, hereinafter “Wasserman”) in view of Kito et al. (U.S. Patent No. 5,548,586, hereinafter “Kito”); Claims 2, 4, 6, 18, 20 and 22 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman in view of Kito and in further view of Wand et al. (U.S. Patent No. 5,386,239, hereinafter “Wand”); Claims 5, 7, 21, and 23 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman in view of Kito and in further view of Levan (U.S. Patent No. 5,959,660); Claims 8 and 24 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman in view of Kito and in further view of Sinha et al. (U.S. Patent No. 6,961,432, hereinafter Sinha); Claims 9 and 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman in view of Kito and in further view of Keevill et al. (U.S. Patent No. 6,358,938, hereinafter “Keevill”); Claims 10 and 27 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman in view of Kito and Keevill, and in further view of Mahesh et al. (U.S. Patent No. 6,891,858, hereinafter “Mahesh”); Claims 11 and 27 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman in view of Kito and Sinha, and in further view of Keevill; Claims 12 and 28 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman in view of Kito, Sinha, Keevill, and in further view of Jung (U.S. Patent No. 6,483,553, hereinafter “Jung”); Claims 14 and 30 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman in view of

Keevill, Wu et al. ("COFDM for Digital ATV Terrestrial Distribution Over 6 MHz Channel", hereinafter "Wu") and in view of Mahesh; Claims 15 and 31 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman in view of Kito, Wu and in further view of Sinha; and Claims 16 and 32 were rejected under 35 U.S.C. § 103(a) as unpatentable over Wasserman in view of Kito, Wu, Sinha, and in further view of Beale et al. (U.S. Patent No. 5,790,615, hereinafter "Beale").

In response to the objection of Claims 7, 9, 23 and 25 for failing to spell out the acronyms "VSB" and "COFDM", these claims are amended to recite "vestigial sideband" (VSB) and "coded orthogonal frequency division multiplexing" (COFDM), to expressly define the acronyms noted in the outstanding Official Action.

Accordingly, Applicants respectfully request that the objection to Claims 7, 9, 23 and 25 be withdrawn.

Independent Claims 1, 17 and 34 were rejected under 35 U.S.C. § 103 as unpatentable over Wasserman in view of Kito. Applicants respectfully traverse this rejection as the record fails to provide adequate evidence of motivation combine the cited references, as asserted in the outstanding Official Action.

Independent Claim 1 relates to a communication method which includes transmitting digital information common to users, and digital information unique to users using a terrestrial analog broadcast channel. The terrestrial analog broadcast channel is partitioned into a common information portion and a unique information portion, which are each digitally modulated and transmitted to the users within the coverage area. Such a configuration allows for increase use of the bandwidth in a terrestrial analog broadcast channel (e.g. 6MHz channel) which is used, for example, to transmit television signals.

Applicants respectfully traverse the obviousness rejection based on Wasserman and Kito because there is insufficient evidence for a motivation to modify Wasserman's method

for utilizing a high bandwidth communication channel for broadcasting network data during off-peak hours by incorporating Kito's method of partitioning the mobile communication channel into a common access channel and a user's specific channel, for the following reasons.<sup>1</sup>

The outstanding Office Action states that the proposed modification would have been obvious "in order to accommodate different user needs while conserving channel usage."<sup>2</sup> The record, however fails to provide the required evidence of motivation for a person of ordinary skill in the art to perform such a modification. While Kito may provide a reason for creating common access channels and user specific channels in a mobile communication system, Kito fails to suggest why a person of ordinary skill in the art would be motivated to incorporate such a feature in system using a high-bandwidth communications channel for broadcasting network data, such as the system described by Wasserman. Particularly, Kito uses the common access channels and user specific channels to perform bi-directional communications between a mobile station and a base station to coordinate communications in the mobile communication network. Specifically, col. 1, lines 19-32 of Kito, describes that a common access channel is included in the control channel and is used for bi-directional communications between the mobile station and the base station to allow the mobile device to perform registration and synchronization operations. After using the common control channel for registration and synchronization, the mobile device is assigned a dedicated communications channel by the base station, which is used to conduct wireless bi-directional communications over the cellular network. Such a configuration is necessary in Kito since

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<sup>1</sup> See M.P.E.P. § 2143.01 stating "[o]bviousness can only be established by combining or modifying the teaching of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art," (citations omitted). See also M.P.E.P. § 2144.08(iii) stating that "[e]xplicit findings on motivation or suggestion to select the claimed invention should also be articulated in order to support a 35 U.S.C. § 103 ground of rejection ... Conclusory statements of similarity or motivation, without any articulated rational or evidentiary support, do not constitute sufficient factual findings."

<sup>2</sup> Outstanding Official Action, p. 3.

mobile telephones tend to drift from cell to cell, and therefore utilize both common channels to establish communications (e.g., perform location registration and synchronization), and dedicated channels to conduct private calls. Kito, however, does not suggest that such a channel configuration would work in a unidirectional high bandwidth communication channel, much less "accommodate different user needs while conserving channel usage" in such a system. Specifically, the receivers of Wasserman are stationary, and therefore do not perform registration and synchronization over a common channel, nor is it necessary to provide each device with a dedicated communications channel, as described by Kito.

Wasserman states that its system already achieves the goal of using a high bandwidth unidirectional communications channel for broadcasting network data during off-peak hours.<sup>3</sup> Wasserman does not suggest that further improvement is desired, or that another feature should be added to accommodate different user needs while conserving channel usage. In particular, Wasserman does not suggest to partition the broadcast television signal into bi-directional common access channels and a dedicated user specific channels, because such a feature is not desired when the purpose of the system is to perform unidirectional transmission of a large amount of data to a plurality of users.

Wasserman and Kito therefore, do not provide the motivation to perform the proposed modification of Wasserman's system. In other words, an attempt to bring the isolated teachings of Kito's mobile communication system into Wasserman's high-bandwidth broadcast system would amount to improperly picking and choosing features from different references without regard to the teachings of the references as a whole.<sup>4</sup> While the required evidence and motivation to combine need not come from the applied references themselves,

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<sup>3</sup> Wasserman, col. 1, lines 48-51.

<sup>4</sup> See In re Ehrelich 590 F2d 902, 200 USPQ 504 (CCPA, 1979) (stating that patentability must be addressed "in terms of what would have been obvious to one of ordinary skill in the art at the time the invention was made in view of the sum of all the relevant teachings in the art, not in view of first one and then another of the isolated teachings in the art," and that one "must consider the entirety of the disclosure made by the references, and avoid combining them indiscriminately.")

the evidence must come from *somewhere* within the record.<sup>5</sup> In this case, the record fails to support the proposed modification of Wasserman's system. Additionally, it is noted that the position that Wasserman's system can be modified to arrive at the claimed system is insufficient to establish a *prima facie* case of obviousness.<sup>6</sup>

Also, it is not clear from the record how Kito's use of bidirectional common access and user specific channels could be incorporated into Wasserman's system. Under such a modification, the system of Wasserman would have to perform bi-directional communications over the common channel, in order to establish a user-specific channel. Clearly, Wasserman's system is not configured to receive a signal from the user over a common control channel in order to assign a communications channel dedicated to the user. Such a modification requires substantial reconstruction or redesign of the element of Wasserman's system, and/or would change the basic principle of operation of Wasserman's system. There is no evidence that a person of ordinary skill in the art would be motivated to perform such changes and redesign.<sup>7</sup> Furthermore, it is not clear from the record whether such a modification would actually accommodate different user needs while conserving channel usage.

In rejecting a claim under 35 U.S.C. § 103(a), the USPTO must support its rejection by "substantial evidence" within the record,<sup>8</sup> and by "clear and particular" evidence<sup>9</sup> of a

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<sup>5</sup> In re Lee, 277 F.3d 1338, 1343-4, 61 USPQ2d 1430 (Fed. Cir. 2002) ("The factual inquiry whether to combine references ... must be based on objective evidence of record. ... [T]he factual question of motivation ... cannot be resolved on subjective belief and unknown authority. ... Thus, the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion").

<sup>6</sup> See MPEP 2143.01 stating that the "fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness"; see also same section stating "[a]lthough a prior art device 'may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so,'" (citation omitted).

<sup>7</sup> See In re Ratti, 270 F.2d 810, 813, 123 USPQ 349, 352 (reversing an obviousness rejection where the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.")

<sup>8</sup> In re Gartside, 203 F.3d 1305, 53 USPQ2d 1769 (Fed. Cir. 2000) (holding that, consistent with the Administrative Procedure Act at 5 USC 706(e), the CAFC reviews the Board's decisions based on factfindings,

suggestion, teaching or motivation to combine the teachings of different references. As discussed above, there is no substantial evidence nor clear and particular evidence, within the record of motivation to modify Wasserman's system by incorporating Kito's method of setting up a dedicated channel, using a common user channel. Without such motivation and absent improper hindsight reconstruction,<sup>10</sup> a person of ordinary skill in the art would not be motivated to perform the proposed modification, and Claims 1-34 are believed to be non-obvious and patentable over the applied references.

Accordingly, Applicants respectfully request the rejection of independent Claims 1, 17 and 34 under 35 U.S.C. § 103 be withdrawn. As Claims 2-16 and 18-33 depend from independent Claims 1 and 17, respectively, it is also submitted that these claims patentably define over the applied references, for at least the reasons discussed above.

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such as 35 U.S.C. § 103(a) rejections, using the 'substantial evidence' standard because these decisions are confined to the factual record compiled by the Board.)

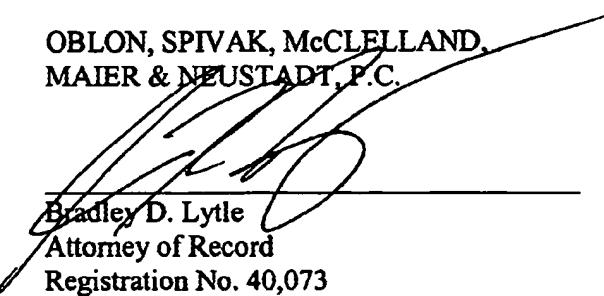
<sup>9</sup> In re Dembiczak, 175 F3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("We have noted that evidence of a suggestion, teaching, or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, from the nature of the problem to be solved, although 'the suggestion more often comes from the teachings of the pertinent references.' The range of sources available, however, does not diminish the requirement for actual evidence. That is, the showing must be clear and particular.")) (emphasis added).

<sup>10</sup> See MPEP 2141, stating, as one of the tenets of patent law applying to 35 USC 103, that "[t]he references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention."

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-34 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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